Commonwealth of Kentucky

Natural Resources and Environmental Protection Cabinet Department for Environmental Protection

Division for Air Quality 803 Schenkel Lane Frankfort, Kentucky 40601 (502) 573-3382

AIR QUALITY PERMIT

Permittee Name: Buffalo Trace Distillery, Incorporated **Mailing Address:** P.O. Box 619, Frankfort, Kentucky 40601

is authorized to operate a distilled spirits manufacturing plant

Source Name: Same as above **Mailing Address:** Same as above

Source Location: 1001 Wilkinson Boulevard, Frankfort, Kentucky 40601

Permit Type: Federally-Enforceable **Review Type:** Title V, Synthetic Minor

Permit Number: V-98-032 (Revision2)

Log Number: F470 (Original), G160 (Revision 1), 54514 (Revision 2)

Application

Complete Date: February 12, 1998 (Original), August 3, 1999 (Revision 1),

May 09, 2002 (Revision 2)

AFS Plant ID #: 21-073-00009

SIC Code: 2085

Region: Bluegrass **County:** Franklin

Issuance Date: January 21, 1999 (Original) Revision Date: August 5, 2002 (Revision 2)

Expiration Date: January 21, 2004

John S. Lyons, Director Division for Air Quality

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Rev	Permit type	Log#	Complete	Issuance	Summary of
#			Date	Date	Action
	Initial Issuance	F470	02/12/98	01/21/99	Original
1	Minor	G160	08/03/99	08/10/99	Name Change
	Revision				
2	Significant	54514	05/09/02	08/05/02	Addition of two boilers and combustion
	Revision				emissions cap

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SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application which was determined to the Kentucky Division for Air Quality hereby authorizes the construction/operation of emission units 14 and 15 and the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any emissions units without first having submitted a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in Regulation 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

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SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Emissions Unit 01 (01-001, 01-002, 01-005 & 03-005) Grain And Distiller's Dried Grain Handling

Description:

Equipment includes: Grain unloading/receiving hopper with enclosure, conveyors, bucket elevators, distiller's dried grain conveying, storage, and loadout (01-001 and 01-002) Maximum operating rate for grain loading/conveyor: 56 tons/hr

Construction commenced: 1974

(01-005) Maximum operating rate for hammermill conveyor: 25.2 tons/hr

Construction commenced: 1974

(03-005) Maximum operating rate for distiller's dried grain loading: 33 tons/hr

Construction commenced: Before 1969

APPLICABLE REGULATIONS:

Regulation 401 KAR 63:010, Fugitive Emissions

Applicable Requirements:

- a) Pursuant to Regulation 401 KAR 63:010, Section 3, reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not limited to the installation and utilization of hoods, fans, and fabric filters to enclose and vent the emissions generated from the processing of dust generating materials, or use of water sprays or other measures to suppress the dust emissions during handling.
- b) Pursuant to Regulation 401 KAR 63:010, Section 3, discharge of visible fugitive emissions beyond the property line is prohibited.

1. Operating Limitations:

None

2. Emission Limitations:

None

3. <u>Testing Requirements:</u>

None

4. Specific Monitoring Requirements:

- a) The permittee shall monitor the amount of grain received and processed on a monthly basis.
- b) The permittee shall monitor the amount of distiller's dried grain processed on a monthly basis.

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SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. Specific Record Keeping Requirements:

- a) Records of grain received and processed shall be maintained on a monthly basis.
- b) Records of distiller's dried grain processed shall be maintained on a monthly basis.

Specific Reporting Requirements:

See Section F.

7. Specific Control Equipment Operating Conditions:

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SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 02 (01-006) Hammer Mill and Receiver Process Cyclone

Description:

Equipment: Hammer mill and receiver process cyclone Maximum operating rate: 25.2 tons/hr milled grain

Construction commenced: Before 1969

APPLICABLE REGULATIONS:

Regulation 401 KAR 61:020, Existing process operations, applicable to an emission unit that commenced prior to July 2, 1975.

1. Operating Limitations:

None

2. Emission Limitations:

a) Pursuant to Regulation 401 KAR 61:020, Section 3(2)(a), particulate emissions into the open air shall not exceed [4.10(P)^{0.67}] lbs/hour for based on a three-hour-average where P is the processing rate in tons/hour. Compliance with the allowable particulate standard may be demonstrated by calculating particulate emissions using grain processing rate and emission factor information as follows:

PM Emissions (lbs/hour) from grain handling = (0.12 lbs/ton which is the AP-42 emission factor)(grain processing averaged weekly in tons/hour)

b) Pursuant to Regulation 401 KAR 61:020, Section 3(1)(a), visible emissions shall not equal or exceed 40% opacity based on a six-minute-average.

3. Testing Requirements:

None

4. **Specific Monitoring Requirements:**

- a) The permittee shall perform a qualitative visual observation of the opacity of emissions from the stack on a weekly basis and maintain a log of the observations. If visible emissions from the stack are perceived or believed to exceed the applicable standard, the permittee shall determine the opacity of emissions by U.S. EPA Reference Method 9 and instigate an inspection of the control equipment for any necessary repairs.
- b) The permittee shall monitor the grain processing rate and hours of operation on a weekly basis.

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SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (Continued)

5. Specific Record Keeping Requirements:

Records of grain processed and hours of operation shall be maintained on a weekly basis.

6. **Specific Reporting Requirements:**

See Section F.

7. Specific Control Equipment Operating Conditions:

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SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 03 (02-001 and 02-005) Fermentation Process

Description:

Equipment includes: Fermentation and distilling process

Construction commenced: Before 1969

APPLICABLE REGULATIONS:

None

1. Operating Limitations:

None

2. Emission Limitations:

None

3. Testing Requirements:

None

4. Specific Monitoring Requirements:

The permittee shall monitor the proof gallons produced on a monthly basis.

5. Specific Record Keeping Requirements:

Records of proof gallons produced shall be maintained on a monthly basis.

6. Specific Reporting Requirements:

See Section F.

7. Specific Control Equipment Operating Conditions:

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SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 04 (03-001) Rotary Dryer

Description:

Equipment: Rotary steam tube dryer

Control equipment: Cyclone

Maximum operating rate: 23.6 tons/hr distiller's dried grain

Construction commenced: 1976

APPLICABLE REGULATIONS:

Regulation 401 KAR 59:010, New process operations, applicable to an emission unit that commenced on or after July 2, 1975.

1. Operating Limitations:

None

2. Emission Limitations:

a) Pursuant to Regulation 401 KAR 59:010, Section 3(2), particulate emissions into the open air shall not exceed [3.59(P)^{0.62}] lbs/hour based on a three-hour-average where P is the processing rate in tons/hour. Compliance with the allowable particulate standard may be demonstrated by calculating particulate emissions using grain processing rate, emission factor information, and cyclone control efficiency as follows:

PM Emissions (lbs/hour) from grain drying = (1.05 lb/ton which is the AP-42 emission factor with the cyclone control efficiency factored in)(grain processing averaged weekly in tons/hour)

b) Pursuant to Regulation 401 KAR 59:010, Section 3(1)(a), any continuous emissions into the open air shall not equal or exceed 20% opacity based on a six-minute-average.

3. <u>Testing Requirements:</u>

None

4. Specific Monitoring Requirements:

- a) The permittee shall perform a qualitative visual observation of the opacity of emissions from the stack on a weekly basis and maintain a log of the observations. If visible emissions from the stack are perceived or believed to exceed the applicable standard, the permittee shall determine the opacity of emissions by U.S. EPA Reference Method 9 and instigate an inspection of the control equipment for any necessary repairs.
- b) The permittee shall monitor the grain processing rate and hours of operation on a weekly basis.

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SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. Specific Record Keeping Requirements:

Records of weekly grain processed and weekly hours of operation shall be maintained.

6. Specific Reporting Requirements:

See Section F.

7. Specific Control Equipment Operating Conditions:

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SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 05 (03-002 and 03-003) Three Rotary Dryers And Cyclone Separator

Description:

Equipment: Three rotary steam tube dryers and pneumatic conveying cyclone separator

Control equipment: Cyclone

Maximum operating rate for dryers (total): 12.6 tons/hr distiller's dried grain

Construction commenced on or before 1969

Maximum operating rate for cyclone separator: 4.25 tons/hr distiller's dried grain

Construction commenced: 1973

APPLICABLE REGULATIONS:

Regulation 401 KAR 61:020, Existing process operations, applicable to an emission unit that commenced prior to July 2, 1975.

1. Operating Limitations:

None

2. Emission Limitations:

a) Pursuant to Regulation 401 KAR 61:020, Section 3(2)(a), particulate emissions into the open air shall not exceed [4.10(P)^{0.67}] lbs/hour based on a three-hour-average where P is the processing rate in tons/hour. Compliance with the allowable particulate standard may be demonstrated by calculating particulate emissions using grain processing rate, emission factor information, and cyclone control efficiency as follows:

PM Emissions (lbs/hour) from grain drying = (1.05 lb/ton which is the AP-42 emission factor with the cyclone control efficiency factored in)(grain processing averaged weekly in tons/hour)

PM Emissions (lbs/hour) from grain conveying = (2.0 lbs/ton which is the AP-42 emission factor)(grain processing averaged weekly in tons/hour)

b) Pursuant to Regulation 401 KAR 61:020, Section 3(1)(a), visible emissions shall not equal or exceed 40% opacity based on a six-minute-average.

3. Testing Requirements:

None

4. **Specific Monitoring Requirements:**

a) The permittee shall perform a qualitative visual observation of the opacity of emissions from the stack on a weekly basis and maintain a log of the observations. If visible emissions from the stack are perceived or believed to exceed the applicable standard, the permittee shall determine the opacity of emissions by U.S. EPA Reference Method 9 and instigate an inspection of the control equipment for any necessary repairs. Permit Number: V-98-032 (Revision 2) Page: 10 of 44

SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. **Specific Monitoring Requirements (continued):**

b) The permittee shall monitor the grain processing rate and hours of operation on a weekly basis.

5. Specific Record Keeping Requirements:

Records of weekly grain processed and hours of operation shall be maintained.

Specific Reporting Requirements:

See Section F.

7. Specific Control Equipment Operating Conditions:

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SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 06 (05-001) Barrel Filling, Aging, and Dumping

Description:

Equipment includes: Barrel filling stations, product aging in warehouses, and barrel dumping Construction commenced: Before 1969.

APPLICABLE REGULATIONS:

None

1. Operating Limitations:

None

2. Emission Limitations:

None

3. <u>Testing Requirements:</u>

None

4. Specific Monitoring Requirements:

The permittee shall monitor the number of barrels stored on a yearly basis.

5. Specific Record Keeping Requirements:

A record of the number of barrels stored on a yearly basis.

6. Specific Reporting Requirements:

See Section F.

7. Specific Control Equipment Operating Conditions:

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SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 07 (06-001 through 06-003, 07-001 and 07-003, and 08-001) Processing And Bottling Operations

Description:

Equipment includes: Holding, processing, & bottling tanks(06-001 through 06-003); bottle filling and pipeline component(07-001 and 07-003) & peripheral equipment(08-001). Construction commenced: Before 1969.

APPLICABLE REGULATIONS:

None

1. Operating Limitations:

None

2. Emission Limitations:

None

3. Testing Requirements:

None

4. **Specific Monitoring Requirements:**

The permittee shall monitor the proof gallons processed on a yearly basis.

5. Specific Record Keeping Requirements:

Records of the proof gallons processed shall be maintained on a yearly basis.

6. Specific Reporting Requirements:

See Section F.

7. Specific Control Equipment Operating Conditions:

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SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 08 (09-001) Indirect Heat Exchanger

Description:

Horizontally-opposed-waste-oil-fired indirect heat exchanger

Secondary fuel: Distillate oil (#2 and #4 fuel oil)

Tertiary fuel: Natural gas

Maximum continuous rating: 176 MMBTU/hr

Construction commenced: May 1972

APPLICABLE REGULATIONS:

Regulation 401 KAR 59:015, New indirect heat exchangers, applicable to an emissions unit with a capacity of less than 250 MMBTU/hour which commenced on or after April 9, 1972.

1. Operating Limitations:

Heat input shall not exceed 176 MMBTU/hr

2. Emission Limitations:

a) In accordance with Regulation 401 KAR 59:015, particulate emissions shall not exceed 0.10 lb/MMBTU for any fuel used.

The permittee may assure compliance with the particulate standard by calculating particulate emissions using the following formulas.

When combusting waste oil:

Particulate emission = $[(64 \text{ x percent ash in fuel lb/}10^3 \text{ gallon which is the AP-42 emission factor})$ divided by (Heating value of waste oil in MMBTU/ 10^3 gallon)]

When combusting #2 fuel oil:

Particulate emission = $[(2 \text{ lbs/}10^3 \text{ gallon which is the AP-42 emission factor})$ divided by (Heating value of fuel in MMBTU/ 10^3 gallon)]

When combusting #4 fuel oil:

Particulate emission = $[(7 \text{ lbs/}10^3 \text{ gallon which is the AP-42 emission factor})$ divided by (Heating value of fuel in MMBTU/ 10^3 gallon)]

When combusting natural gas:

Particulate emissions = [(The most recent finalized AP-42 particulate matter emission factor) divided by (Heating value of the natural gas used in MMBTU/ 10^6 scf)]

b) Pursuant to Regulation 401 KAR 59:015, S0₂ emissions shall not exceed 0.8 lbs/MMBTU for any fuel used in this emissions unit.

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SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. <u>Emission Limitations (continued):</u>

The permittee may assure compliance with the SO₂ standard by calculating sulfur dioxide emissions using the following formulas.

When combusting waste oil:

 SO_2 emission = [(157 X percent sulfur in fuel lb/ 10^3 gallon which is the AP-42 emission factor) divided by (Heating value of waste oil in MMBTU/ 10^3 gallon)]

When combusting #2 fuel oil:

 SO_2 emission = [(157 X percent sulfur in fuel lb/10³ gallon which is the AP-42 emission factor) divided by (Heating value of fuel in MMBTU/10³ gallon)]

When combusting #4 fuel oil:

 SO_2 emission = [(150 X percent sulfur in fuel lb/ 10^3 gallon which is the AP-42 emission factor) divided by (Heating value of fuel in MMBTU/ 10^3 gallon)]

When combusting natural gas:

 $SO_2 = [(0.6 \text{ lb}/10^6 \text{ scf which is the AP-42 sulfur dioxide emission factor})$ divided by (Heating value of the natural gas used in MMBTU/ 10^6 scf)]

c) Pursuant to Regulation 401 KAR 59:015, Section 4(2), emissions shall not exceed 20% opacity based on a six minute average, except that a maximum of 40% opacity, based on a six-minute average, shall be permissible for not more than six consecutive minutes in any consecutive 60 minutes during cleaning the firebox or blowing soot.

3. Testing Requirements:

- a) The permittee shall determine the opacity of emissions from the stack using U.S. EPA Reference Method 9 annually, or more frequently if requested by the Division.
- b) The permittee shall conduct a performance test for particulate emissions when combusting waste oil within one year of issuance of this permit.

4. Specific Monitoring Requirements:

- a) The permittee shall monitor the heating value and sulfur content of each type of fuel oil combusted whenever a new shipment of fuel oil received. The permittee may use certification from the fuel supplier to satisfy this requirement.
- b) The permittee shall monitor the amount of each type of fuel combusted on a monthly basis.

5. Specific Record Keeping Requirements:

a) The permittee shall maintain the records of fuel use, heating value, and sulfur contents for each type of fuel combusted on a monthly basis.

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SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. Specific Record Keeping Requirements (Continued):

b) For the purposes of precluding applicability of PSD and to satisfy Section D.2.a, a twelve-month rolling sum of particulate emissions (TMPE) shall be kept for this unit for use in tracking particulate emissions due to combustion, i.e.

$$TMPE_{unit8} = S \sum_{m=1}^{12} PM_{mWO} + PM_{m2F} + PM_{m4F} + PM_{mNG}$$

Where $TMPE_{unit8} = Summation of particulate emissions for the current month and previous 11 months for this emission point in Tons$

m =the month, i.e.

m=1=current month,

m=2=previous month,

m=3=month before previous month, etc.

PM_{mwo}= particulate matter emitted for the month due to waste oil use

 PM_{m2F} = particulate matter emitted for the month due to #2 fuel oil use PM_{m4F} = particulate matter emitted for the month due to #4 fuel oil use

 PM_{mNG} = particulate matter emitted for the month due to natural gas use

The emission factor for waste oil shall be as specified in 2.a), above, until the factor is determined from the performance test required in 3.b), above

c) For the purposes of precluding applicability of PSD and to satisfy Section D.2.b, a twelvemonth rolling sum of sulfur dioxide emissions (TMSE) shall be kept for this unit for use in tracking total SO_2 emissions from combustion sources i.e.

$$TMSE_{unit8} = S \sum_{m=1}^{12} \!\! SO_{2mWO} + SO_{2m2F} + SO_{2m4F} + SO_{2mNG}$$

Where $TMSE_{unit8} = Summation of SO_2$ for the current month and previous 11 months for this emission point in Tons

m = the month, i.e.

m=1=current month,

m=2=previous month,

m=3=month before previous month, etc.

 $SO_{2mWO} = SO_2$ emitted for the month due to waste oil use

SO_{2m2F}= SO₂ emitted for the month due to #2 fuel oil use

SO_{2m4F}= SO₂ emitted for the month due to #4 fuel oil use

 $SO_{2mNG} = SO_2$ emitted for the month due to natural gas use

c) For the purposes of precluding applicability of PSD and to satisfy Section D.2.c, a twelve-month rolling sum of nitrogen oxide emissions (TMNE) shall be kept for this unit for use in tracking total NOx emissions from combustion sources i.e.

$$TMSE_{unit8} = S \sum_{m=1}^{12} NOx_{mWO} + \ NOx_{m2F} + NOx_{m4F} + NOx_{mNG} \label{eq:total_sum}$$

Where $TMNE_{unit8}$ = Summation of NOx for the current month and previous 11 months for this emission point in Tons m = the month, i.e.

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SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED

5. Specific Record Keeping Requirements (Continued):

m=1=current month,

m=2=previous month,

m=3=month before previous month, etc.

 NOx_{mWO} = NOx emitted for the month due to waste oil use

 NOx_{m2F} = NOx emitted for the month due to #2 fuel oil use

 NOx_{m4F} = NOx emitted for the month due to #4 fuel oil use

 NOx_{mNG} = NOx emitted for the month due to natural gas use

Specific Reporting Requirements:

See Section F.

7. Specific Control Equipment Operating Conditions:

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SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 09 (09-002) Indirect Heat Exchanger

Description:

Spreader stoker coal-fired indirect heat exchanger

Control equipment: Multicyclones

Maximum continuous rating: 126 MMBTU/hr Construction commenced: Before 1969

APPLICABLE REGULATIONS:

Regulation 401 KAR 61:015, Existing indirect heat exchangers that commenced operation before April 9, 1972.

1. **Operating Limitations:**

Heat input shall not exceed 126 MMBTU/hr.

2. <u>Emission Limitations:</u>

a) Pursuant to Regulation 401 KAR 61:015, Section 4(1), particulate emissions shall not exceed 0.45 lb/MMBTU based on a three-hour average.

The permittee may assure compliance with the particulate standard by calculating particulate emissions using the following formula:

Particulate emission = [(6.03 lb/ton which is the emission factor from most recent stack test with the cyclone control efficiency factored in) divided by (coal heating value in MMBTU/ton)]

- b) Pursuant to Regulation 401 KAR 61:015, Section 4(3), emissions shall not exceed 40 percent opacity except that a maximum of sixty (60) percent opacity shall be permissible for not more than six (6) consecutive minutes in any sixty (60) consecutive minutes during cleaning the fire box or blowing soot.
- c) Pursuant to Regulation 401 KAR 61:015, sulfur dioxide emissions shall not exceed 1.42 lb/MMBTU based on a twenty-four average.

The permittee may assure compliance with the sulfur dioxide standard by calculating sulfur dioxide emissions using the following formula.

Sulfur dioxide = [(38 x percent sulfur in coal lb/ton which is the AP-42 emission factor) divided by (coal heating value in MMBTU/ton)].

3. Testing Requirements:

a) The permittee shall perform one performance test for particulate emissions within one year from the issuance of this permit.

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SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

3. <u>Testing Requirements (continued):</u>

b) When the unit is in operation, the permittee shall read, weather permitting, the opacity of emissions using U.S. EPA Reference Method 9 once per daylight shift.

4. Specific Monitoring Requirements:

- a) The permittee shall monitor the fuel use, heating value, and ash and sulfur content of coal by performing analysis on each shipment of coal received.
- b) In accordance with Regulation 401 KAR 61:015, Section 6 (3), the permittee shall monitor the amount of fuel combusted on a daily basis.

5. **Specific Record Keeping Requirements:**

- a) The permittee shall maintain the records of the fuel analysis.
- b) The permittee shall maintain the records of the amount of fuel combusted on a daily basis.
- c) For the purposes of precluding applicability of PSD and to satisfy Section D.2.a, a twelvemonth rolling sum of particulate emissions (TMPE) shall be kept for this unit for use in tracking particulate emissions due to combustion, i.e.

$$TMPE_{unit9} = S_{m=1}^{12} PM_{mCoal}$$

Where $TMPE_{unit9}$ = Summation of particulate emissions for the current month and previous 11 months for this emission point in Tons

m =the month, i.e.

m=1=current month,

m=2=previous month,

m=3=month before previous month, etc.

PM_{mCoal}= particulate matter emitted for the month due to coal use

The emission factor for the particulate emission shall be as specified in 2.a), above, until the emission factor is determined from the testing required by 3.a), above.

d) For the purposes of precluding applicability of PSD and to satisfy Section D.2.a, a twelvemonth rolling sum of sulfur dioxide emissions (TMSE) shall be kept for this unit for use in tracking total SO₂ emissions due to combustion, i.e.

$$TMSE_{unit9} = S_{m=1}^{12} SO_{2mCoal}$$

Where $TMSE_{unit9} = Summation of SO_2$ emissions for the current month and previous 11 months for this emission point in Tons

m = the month, i.e.

m=1=current month,

m=2=previous month,

m=3=month before previous month, etc.

 $SO_{2mCoal} = SO_2$ emitted for the month due to coal use

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SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. **Specific Record Keeping Requirements (continued):**

c) For the purposes of precluding applicability of PSD and to satisfy Section D.2.a, a twelvemonth rolling sum of nitrogen oxides (TMNE) shall be kept for this unit for use in tracking NOx emissions due to combustion, i.e.

$$TMNE_{unit9} = S_{m=1}^{12} NOx_{mCoal}$$

Where $TMNE_{unit9}$ = Summation of NOx emissions for the current month and previous 11 months for this emission point in Tons

m =the month, i.e.

m=1=current month,

m=2=previous month,

m=3=month before previous month, etc.

NOx_{mCoal}= NOx emitted for the month due to coal use

Specific Reporting Requirements:

See Section F.

7. Specific Control Equipment Operating Conditions:

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SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 10 (09-003) Indirect Heat Exchanger

Description:

Horizontally-opposed-waste-oil-fired indirect heat exchanger

Secondary fuel: Distillate oil (#2 and #4 fuel oil)

Tertiary fuel: Natural gas

Maximum continuous rating: 63 MMBTU/hr

Construction commenced: May 1972

APPLICABLE REGULATIONS:

Regulation 401 KAR 59:015, New indirect heat exchangers applicable to an emissions unit with a capacity of less than 250 MMBtu/hour that commenced operation on or after April 9, 1972.

1. Operating Limitations:

Heat input shall not exceed 63 MMBTU/hr.

2. <u>Emission Limitations:</u>

a) In accordance with Regulation 401 KAR 59:015, particulate emissions shall not exceed 0.10 lb/MMBTU for any fuel used.

The permittee may assure compliance with the particulate standard by calculating particulate emissions using the following formulas.

When combusting waste oil:

Particulate emission = $[(64 \text{ x percent ash in fuel lb/}10^3 \text{ gallon which is the AP-42 emission factor})$ divided by (Heating value of waste oil in MMBTU/ 10^3 gallon)]

When combusting #2 fuel oil:

Particulate emission = $[(2 \text{ lbs/}10^3 \text{ gallon which is the AP-42 emission factor})$ divided by (Heating value of fuel in MMBTU/ 10^3 gallon)]

When combusting #4 fuel oil:

Particulate emission = $[(7 \text{ lbs/}10^3 \text{ gallon which is the AP-42 emission factor})$ divided by (Heating value of fuel in MMBTU/ 10^3 gallon)]

When combusting natural gas:

Particulate emissions = [(The most recent finalized AP-42 particulate matter emission factor) divided by (Heating value of the natural gas used in MMBTU/10⁶ scf)]

b) Pursuant to Regulation 401 KAR 59:015, SO₂ emissions shall not exceed 0.8 lbs/MMBTU for any fuel used in this emissions unit.

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SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. <u>Emission Limitations (continued):</u>

The permittee may assure compliance with the SO₂ standard by calculating sulfur dioxide emissions using the following formulas.

When combusting waste oil:

 SO_2 emission = [(157 X percent sulfur in fuel lb/ 10^3 gallon which is the AP-42 emission factor) divided by (Heating value of waste oil in MMBTU/ 10^3 gallon)]

When combusting #2 fuel oil:

 SO_2 emission = [(157 X percent sulfur in fuel lb/ 10^3 gallon which is the AP-42 emission factor) divided by (Heating value of fuel in MMBTU/ 10^3 gallon)]

When combusting #4 fuel oil:

 SO_2 emission = [(150 X percent sulfur in fuel lb/ 10^3 gallon which is the AP-42 emission factor) divided by (Heating value of fuel in MMBTU/ 10^3 gallon)]

When combusting natural gas:

 $SO_2 = [(0.6 \text{ lb}/10^6 \text{ scf which is the AP-42 mission factor}) \text{ divided by (Heating value of the natural gas used in MMBTU/<math>10^6 \text{ scf}$)]

c) Pursuant to Regulation 401 KAR 59:015, Section 4(2), emissions shall not exceed 20% opacity based on a six minute average, except that a maximum of 40% opacity, based on a six-minute average, shall be permissible for not more than six consecutive minutes in any consecutive 60 minutes during cleaning the firebox or blowing soot.

3. Testing Requirements:

- a) The permittee shall perform one performance test for particulate emissions when combusting waste oil within one year from the issuance of this permit.
- b) The permittee shall determine the opacity of emissions from the stack using U.S. EPA Reference Method 9 annually, or more frequently if requested by the Division.

4. Specific Monitoring Requirements:

- a) The permittee shall monitor the heating value and sulfur content of each type of fuel oil combusted whenever a new shipment of fuel oil received. The permittee may use certification from the fuel supplier to satisfy this requirement.
- b) The permittee shall monitor the amount of each type of fuel combusted on a monthly basis.

5. Specific Record Keeping Requirements:

a) The permittee shall maintain the records of the amount of each type of fuel combusted on a monthly basis.

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SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- 5. **Specific Record Keeping Requirements (continued):**
 - b) The permittee shall maintain the records of heating value and sulfur content for each type of fuel oil.
 - c) For the purposes of precluding applicability of PSD and to satisfy Section D.2.a, a twelvemonth rolling sum of particulate emissions (TMPE) shall be kept for this unit for use in tracking particulate emissions due to combustion, i.e.

$$TMPE_{unit10} = S^{12} \underset{m=1}{PM}_{mWO} + PM_{m2F} + PM_{m4F} + PM_{mNG}$$

Where $TMPE_{unit10} = Summation$ of particulate emissions for the current month and previous 11 months for this emission point in Tons

m = the month, i.e.

m=1=current month,

m=2=previous month,

m=3=month before previous month, etc.

 PM_{mWO} = particulate matter emitted for the month due to waste oil use PM_{m2F} = particulate matter emitted for the month due to #2 fuel oil use

 PM_{m4F} = particulate matter emitted for the month due to #4 fuel oil use

PM_{mNG}= particulate matter emitted for the month due to natural gas use

The emission factor for waste oil shall be as specified in 2.a), above, until the factor is determined from the performance test required in 3.a), above

d) For the purposes of precluding applicability of PSD and to satisfy Section D.2.a, a twelvemonth rolling sum of sulfur dioxide (TMSE) shall be kept for this unit for use in tracking SO₂ due to combustion, i.e.

$$TMSE_{unit10} = S \sum_{m=1}^{12} SO_{2mWO} + SO_{2m2F} + SO_{2m4F} + SO_{2mNG}$$

Where $TMSE_{unit10} = Summation$ of sulfur dioxide for the current month and previous 11 months for this emission point in Tons

m = the month, i.e.

m=1=current month,

m=2=previous month,

m=3=month before previous month, etc.

SO_{2mWO}= sulfur dioxide emitted for the month due to waste oil use

 SO_{2m2F} = sulfur dioxide emitted for the month due to #2 fuel oil use

 SO_{2m4F} = sulfur dioxide emitted for the month due to #4 fuel oil use

SO_{2mNG}= sulfur dioxide emitted for the month due to natural gas use

e) For the purposes of precluding applicability of PSD and to satisfy Section D.2.a, a twelvemonth rolling sum of nitrogen oxide emissions (TMNE) shall be kept for this unit for use in tracking NOx emissions due to combustion, i.e.

$$TMNE_{unit10} = S \sum_{m=1}^{12} NOx_{mWO} + NOx_{m2F} + NOx_{m4F} + NOx_{mNG} \label{eq:master}$$

Where $TMNE_{unit10}$ = Summation of NOx emissions for the current month and previous 11 months for this emission point in Tons

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SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. Specific Record Keeping Requirements (continued):

m =the month, i.e.

m=1=current month,

m=2=previous month,

m=3=month before previous month, etc.

 NOx_{mWO} = NOx emitted for the month due to waste oil use

 NOx_{m2F} = NOx emitted for the month due to #2 fuel oil use

 NOx_{m4F} = NOx emitted for the month due to #4 fuel oil use

NOx_{mNG}= NOx emitted for the month due to natural gas use

Specific Reporting Requirements:

See Section F.

7. <u>Specific Control Equipment Operating Conditions:</u>

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SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 11 (12-001) Wastewater Treatment Process

Description:

Equipment includes: Wastewater treatment system

Construction commenced: 1974

APPLICABLE REGULATIONS:

None

1. **Operating Limitations:**

None

2. Emission Limitations:

None

3. <u>Testing Requirements:</u>

None

4. **Specific Monitoring Requirements:**

None

5. Specific Record Keeping Requirements:

None

Specific Reporting Requirements:

See Section F.

7. Specific Control Equipment Operating Conditions:

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SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 12 (13-001) Cooling Tower

Description:

Maximum operating rate: 156,000 gals/yr of water

Construction commenced: 1974

APPLICABLE REGULATIONS:

Regulation 401 KAR 63:010, Fugitive Emissions

Applicable Requirements:

- a) Pursuant to Regulation 401 KAR 63:010, Section 3, reasonable precautions shall be taken to prevent particulate matter from becoming airborne.
- b) Pursuant to Regulation 401 KAR 63:010, Section 3, discharge of visible fugitive emissions beyond the property line is prohibited.

1. **Operating Limitations:**

None

2. Emission Limitations:

None

3. <u>Testing Requirements:</u>

None

4. Specific Monitoring Requirements:

None

5. Specific Record Keeping Requirements:

None

6. Specific Reporting Requirements:

See Section F.

7. Specific Control Equipment Operating Conditions:

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SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Units 14 & 15 (14-001 and 14-002) Two Indirect Heat Exchangers

Description:

Two (2) identical natural gas-fired indirect heat exchangers

Secondary fuel: Distillate oil

Maximum continuous rating: 58 MMBTU/hr, each

Construction commenced: May 9, 2002

APPLICABLE REGULATIONS:

Regulation 401 KAR 59:015, New indirect heat exchangers that commenced operation on or after April 9, 1972.

Regulation 401 KAR 60:005, incorporated by reference Regulation 40 CFR 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, applicable to a steam generating unit with a capacity of less than 100 MMBTU/hr but greater than 10 MMBTU/hr which commenced on or after June 9, 1989.

1. **Operating limitations:**

Heat input shall not exceed 58 MMBTU/hr, each.

2. Emission Limitations:

a) Pursuant to Regulation 401 KAR 59:015, Section 4(1)(c), Particulate emissions from each unit shall not exceed 0.1 lb/MMBTU upon a three-hour average when combusting distillate fuel oil.

The permittee may assure compliance with the particulate standard by calculating particulate emissions using the following formulae.

When combusting distillate fuel oil:

Particulate emission = [(The most recent finalized AP-42 particulate matter emission factor) divided by (Heating value of the fuel oil in MMBTU/10³ gal)]

When combusting natural gas:

Particulate emission = [(The most recent finalized AP-42 particulate matter emission factor) divided by (the heating value of the natural gas used in MMBTU/ 10^6 scf).

b) Pursuant to Regulation 401 KAR 59:015, Section 4(2), emissions from each unit shall not exceed 20% opacity based on a six minute average, except that a maximum of 40% opacity, based on a six minute average, shall be permissible for

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SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. <u>Emission Limitations (continued):</u>

not more than six consecutive minutes in any consecutive 60 minutes during cleaning the firebox or blowing soot.

c) Pursuant to Regulation 401 KAR 60:005, incorporating by reference 40 CFR 60, Subpart Dc, Sulfur dioxide emissions from each unit shall not exceed 0.5 lb/MMBTU.

The permittee may assure compliance with the sulfur dioxide standard by calculating sulfur dioxide emissions using the following formulae.

When combusting distillate fuel oil:

Sulfur dioxide emissions = [(The most recent finalized AP-42 sulfur dioxide emission factor) divided by (Heating value of the fuel oil in MMBTU/ 10^3 gal)]

When combusting natural gas:

Sulfur dioxide emissions = [(The most recent finalized AP-42 sulfur dioxide emission factor) divided by (Heating value of the natural gas used in MMBTU/ 10^6 scf)]

3. <u>Testing Requirements:</u>

If fuel oil is combusted, the permittee shall determine the opacity of emissions from the stack using U.S. EPA Reference Method 9 annually, or more frequently if requested by the Division. Compliance with opacity standards is assumed when combusting natural gas.

4. **Specific Monitoring Requirements:**

- a) The permittee shall monitor the natural gas and fuel oil usage rate on a monthly basis.
- b) The permittee may use the fuel supplier certificate to meet the sulfur dioxide emission monitoring requirements specified in 40 CFR 60.47a, under Subpart Dc.
- c) The fuel supplier certification shall include the name of the oil supplier and a statement from the oil supplier that the oil complies with the specifications under the definition of distillate fuel oil specified in the regulation.

5. Specific Record Keeping Requirements:

a) The permittee shall maintain records of the amount of each type of fuel combusted in each unit on a monthly basis.

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SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. Specific Record Keeping Requirements (continued):

- b) The permittee shall maintain records of the heating value and sulfur content for each type of fuel oil.
- c) For the purposes of precluding applicability of PSD and to satisfy Section D.2.a, a twelvemonth rolling sum of particulate emissions (TMPE) shall be kept for these units for use in tracking particulate emissions due to combustion, i.e.

For Unit 14

$$TMPE_{unit14} = S_{m=1}^{12} PM_{m2F} \ + S \ PM_{mNG}^{12} \label{eq:mass}$$

Where $TMPE_{unit14} = Summation$ of particulate emissions for the current month and previous 11 months for this emission point in Tons

m = the month, i.e.

m=1=current month,

m=2=previous month,

m=3=month before previous month, etc.

 PM_{m2F} = particulate matter emitted for the month due to #2 fuel oil use PM_{mNG} = particulate matter emitted for the month due to natural gas use

For Unit 15

$$TMPE_{unit15} = S_{m=1}^{12} PM_{m2F} + S_{m=1}^{12} PM_{mNG}$$

Where $TMPE_{unit15} = Summation of particulate emissions for the current month and previous 11 months for this emission point in Tons$

m = the month, i.e.

m=1=current month.

m=2=previous month,

m=3=month before previous month, etc.

 PM_{m2F} = particulate matter emitted for the month due to distillate fuel oil use PM_{mNG} = particulate matter emitted for the month due to natural gas use

d) For the purposes of precluding applicability of PSD and to satisfy Section D.2.a, a twelvemonth rolling sum of sulfur dioxide emissions (TMSE) shall be kept for these units for use in tracking particulate emissions due to combustion, i.e.

For Unit 14

$$TMSE_{unit14} = S_{m=1}^{12} SO_{2m2F} + S_{m=1}^{12} SO_{2mNG}$$

Where $TMSE_{unit14} = Summation of sulfur dioxide emissions for the current month and previous 11 months for this emission point in Tons$

m =the month, i.e.

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SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. Specific Record Keeping Requirements (continued):

m=1=current month.

m=2=previous month,

m=3=month before previous month, etc.

 $SO_{2m2F}\!\!=\!$ sulfur dioxide emitted for the month due to distillate fuel oil use

 SO_{2mNG} = sulfur dioxide emitted for the month due to natural gas use

For Unit 15

$$TMSE_{unit15} = S \sum_{m=1}^{12} SO_{2m2F} + S \sum_{m=1}^{12} SO_{2mNG}$$

Where $TMSE_{unit15} = Summation of sulfur dioxide emissions for the current month and previous 11 months for this emission point in Tons$

m =the month, i.e.

m=1=current month,

m=2=previous month,

m=3=month before previous month, etc.

 SO_{2m2F} = sulfur dioxide emitted for the month due to distillate fuel oil use SO_{2mNG} = sulfur dioxide emitted for the month due to natural gas use

e) For the purposes of precluding applicability of PSD and to satisfy Section D.2.a, a twelvemonth rolling sum of nitrogen oxide emissions (TMNE) shall be kept for these units for use in tracking NOx due to combustion, i.e.

For Unit 14

$$TMNE_{unit14} = S_{m=1}^{12} NOx_{m2F} + S_{m=1}^{12} NOx_{mNG}$$

Where $TMNE_{unit14}$ = Summation of NOx emissions for the current month and previous 11 months for this emission point in Tons

m = the month, i.e.

m=1=current month,

m=2=previous month,

m=3=month before previous month, etc.

NOx_{m2F}= NOx emitted for the month due to distillate fuel oil use

NOx_{mNG}= NOx emitted for the month due to natural gas use

For Unit 15

$$TMNE_{unit15} = S \sum_{m=1}^{12} NOx_{m2F} + S \sum_{m=1}^{12} NOx_{mNG}$$

Where TMNE $_{unit15}$ = Summation of NOx emissions for the current month and previous 11 months for this emission point in Tons m = the month, i.e.

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SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. **Specific Record Keeping Requirements (continued):**

m=1=current month,

m=2=previous month,

m=3=month before previous month, etc.

 NOx_{m2F} = particulate matter emitted for the month due to distillate fuel oil use NOx_{mNG} = particulate matter emitted for the month due to natural gas use

6. **Specific Reporting Requirements:**

See Section F.

7. Specific Control Equipment Operating Conditions:

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SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to Regulation 401 KAR 52:020, Section 6. While these activities are designated as insignificant the permittee must comply with the applicable regulation(s). Process and emission control equipment at each insignificant activity subject to a generally applicable regulation shall be inspected weekly and a qualitative visible emissions evaluation made. The results of the inspections and observations shall be recorded in a log, noting color, duration, density (heavy or light), cause and any corrective actions taken for any abnormal visible emissions.

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Emission Point No	. <u>Description</u>	Generally Applicable Regulation
01-003	Grain Cleaner Receiver Cyclone	401 KAR 61:020
01-004	Grain Bin Loading	401 KAR 59:010
01-007	Meal Bin Loading	401 KAR 61:020
02-002	Beer Well	NA
02-003	Vent Condenser	NA
02-004	Vent Scrubber Condenser	NA
02-006	Column Condenser	NA
02-007	Spirits Tanks	NA
02-008	Heads and Tails Tanks	NA
02-009	Receiving Cistern Tanks	NA
02-010	Beer Still Pressure Relief	NA
02-011	Doubler Still Pressure Relief	NA
02-012	Column Still Pressure Relief	NA
03-004	Distiller's Dried Grain Conveying	401 KAR 61:020
07-002	C-Fill Line	NA
07-004	F-Fill Line	NA
07-005	Blanton Fill Line	NA
07-005a	G-Fill Line	NA
07-005b	H-Fill Line	NA
07-005d	K-Fill Line	NA
07-006	Labeling/Case Sealing	NA
07-007	Case Printing	NA
09-004	Coal Stockpile	401 KAR 63:010
09-005	Total Coal Loading	401 KAR 61:020
09-006	Total Coal Bucket Elevators	401 KAR 59:010
09-007	Coal Bunker Filling	401 KAR 61:020
09-008	Ash Handling	401 KAR 61:020
09-009	Ash Loadout	401 KAR 63:010
09-010	Blended Waste Oil Tank	NA
09-011	Caustic Tanks-NaOH	NA
11-001	Unpaved Roads	401 KAR 63:010
-	Mobile Sources	401 KAR 63:010
-	Maintenance Equipment	NA

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SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

- 1. PM₁₀, sulfur dioxide, and visible emissions, as measured by methods referenced in Regulation 401 KAR 50:015, Section 1, shall not exceed the respective limitations specified herein.
- 2. In order to preclude the applicability of 401 KAR 51:017, the permittee shall not exceed the following limitations:
 - a) The total PM emissions from combustion units 08, 09, 10, 14 & 15 shall not exceed 245 tons in any consecutive twelve-month period.

$$TMPE_{total} = TMPE_{unit8} + TMPE_{unit9} + TMPE_{unit10} + TMPE_{unit14} + TMPE_{unit15} = 245 tons PM$$

b) The total sulfur dioxide emissions from combustion units 08, 09,10,14 & 15 shall not exceed 245 tons in any consecutive twelve-month period.

$$TMSE_{total} = TMSE_{unit8} + TMSE_{unit9} + TMSE_{unit10} + TMSE_{unit14} + TMSE_{unit15} = 245 \ tons \ SO_2$$

c) The total nitrogen oxide emissions from combustion units 08, 09,10,14, and 15 shall not exceed 245 tons in any consecutive twelve-month period.

$$TMNE_{total} = TMNE_{unit8} + TMNE_{unit9} + TMNE_{unit10} + TMNE_{unit14} + TMNE_{unit15} = 245 tons NOx$$

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SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

Pursuant to Regulation 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

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SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS

- 1. Pursuant to Section 1b (IV)(1) of the materials incorporated by reference in Regulation 401 KAR 52:020, Section 10, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
 - a. Date, place (as defined in this permit), and time of sampling or measurements;
 - b. Analyses performance dates;
 - c. Company or entity that performed analyses;
 - d. Analytical techniques or methods used;
 - e. Analyses results; and
 - f. Operating conditions during time of sampling or measurement.
- 2. Pursuant to Section 1b (IV)(1) of the materials incorporated by reference in Regulation 401 KAR 52:020, Section 10, records of all required monitoring data, support information (including calibrations, maintenance records, and original strip chart recordings), and reports required by the Division for Air Quality shall be retained by the permittee for a period of five years. In accordance with Section 1a (7) of the materials incorporated by reference in Regulations 401 KAR 52:020, Section 10 and 401 KAR 52:020, Section 3(1)(h)1a, these records shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality.
- 3. In accordance with the requirements of Regulation 401KAR 52:020, Section 3(1)(h) the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
 - Access and copy any records required by this permit, enter upon the premises to inspect
 any facility, equipment (including air pollution control equipment), practice, or operation;
 and
 - Sample or monitor substances or parameters that affect compliance with the permit or any applicable requirements.
 Reasonable times include all hours of operation, normal office hours, and during an emergency.
- 4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
- 5. Summary reports of any monitoring required by this permit, other than continuous emission or opacity monitors, shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation. Material incorporated by reference by 401 KAR 52:020, Section 1b (V)1.

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SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

- 6. The semi-annual reports are due prior to January 30th and July 30th of each year. Data from the continuous emission and opacity monitors shall be reported to the Technical Services Branch in accordance with the requirements of Regulation 401 KAR 59:005, General Provisions, Section 3(3). All reports shall be certified by a responsible official pursuant to Regulation 401 KAR 52:020, Section 23. All deviations from permit requirements shall be clearly identified in the reports.
- 7. a. In accordance with the provisions of Regulation 401 KAR 50:055, Section 1 the owner or operator shall notify the Division for Air Quality's Frankfort Regional Office concerning startups, shutdowns, or malfunctions as follows:
 - 1. When emissions during any planned shutdowns and ensuing startups will exceed the standards notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
 - 2. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards notification shall be made as promptly as possible by telephone (or other electronic media) and shall cause written notice upon request.
- 8. Pursuant to Section 1b V(3) and (4) of the material incorporated by reference in Regulation 401 KAR 52:020, Section 10, the owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.6 above) to the Regional Office listed in this permit within 30 days. Other deviations from permit requirements shall be included in the semiannual report required by Section F.5.
- 9. Pursuant to Regulation 401 KAR 52:020, Permits, Section 21, the permittee shall annually complete and return a Compliance Certification Form (DEP 7007CC) to the Division's Frankfort Regional Office and the U.S. EPA in accordance with the following requirements:
 - a. Identification of the term or condition of the permit;
 - b. The compliance status of each term or condition of the permit;
 - c. Whether compliance was continuous or intermittent;
 - d. The method used for determining the compliance status for the source, currently and over the reporting period; and
 - e. For an emissions unit that was still under construction or which has not commenced operation at the end of the year covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

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SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications should be mailed to the following addresses:

Division for Air Quality Frankfort Regional Office 643 Teton Trail, Suite B Frankfort, KY 40601 U.S. EPA Region IV Air Enforcement Branch Atlanta Federal Center 61 Forsyth St. Atlanta, GA 30303-8960 Division for Air Quality Central Files 803 Schenkel Lane Frankfort, KY 40601

- 10. In accordance with Regulation 401KAR 52:020, Section 3(1)(d), the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30) days of the date the KEIS emission report is mailed to the permittee. If a KEIS emission report is not mailed to the permittee, comply with all other emission reporting requirements in this permit.
- 11. Pursuant to Section VII.3 of the policy manual of the Division for Air Quality as referenced by Regulation 401 KAR 50:016, Section 1(1), results of performance test required by this permit shall be submitted to the Division by the source or its representative within forty-five days after the completion of the fieldwork.

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SECTION G - GENERAL PROVISIONS

(a) General Compliance Requirements

1. The permittee shall comply with all conditions of this permit. Noncompliance shall be (a) violation(s) of Regulation 401 KAR 52:020, Section 3(1)(b) and Federal Statute 42 USC 7401 through 7671q (The Clean Air Act). Noncompliance with this permit is grounds for enforcement action including but not limited to the termination, revocation and reissuance, revision, or denial of a permit [Section 1a(3) of the materials incorporated by reference in Regulation 401 KAR 52:020, Section 10].

- 2. Notification by the permittee of a planned change or anticipated noncompliance, or filing of a request for any permit revision, reissuance, or rescission shall not stay any permit condition [Section 1a(6) of the materials incorporated by reference in Regulation 401 KAR 52:020, Section 10].
- 3. Pursuant to Section 1a (3) of the materials incorporated by reference in Regulations 401 KAR 52:020 Section 10, 401 KAR 52:020, Section 7(3), and 401 KAR 50:060, Section 2, this permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with Regulation 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
 - a. If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to Regulation 401KAR 52:020, Section 12;
 - b. The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
 - c. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

- 4. The permittee shall furnish upon request information requested by the Division to determine compliance with the permit or to determine if cause exists for modifying, revoking and reissuing, or terminating the permit [Sections 1a (7) and (8) of the materials incorporated by reference in Regulation 401 KAR 52:020, Section 10].
- 5. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority [401 KAR 52:020, Section 7(1)].

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SECTION G - GENERAL PROVISIONS (Continued)

6. Any condition or portion of this permit that becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a (14) of the materials incorporated by reference in Regulation 401 KAR 52:020, Section 10].

- 7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a (4) of the materials incorporated by reference in Regulation 401 KAR 52:020, Section 10].
- 8. Except as identified as state-origin requirements in this permit, all terms and conditions contained herein shall be enforceable by the United States Environmental Protection Agency and citizens of the United States [Section 1a (15)(b) of the materials incorporated by reference in Regulation 401 KAR 52:020, Section 10].
- 9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in Regulation 401 KAR 50:038, Section 3(6) [Section 1a (10) of the materials incorporated by reference in Regulation 401 KAR 52:020, Section 10].
- 10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:020, Section 11(3)].
- 11. This permit does not convey property rights or exclusive privileges [Section 1a (9) of the materials incorporated by reference in Regulation 401 KAR 52:020, Section10].
- 12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Natural Resources and Environmental Protection or any other federal, state, or local agency.
- 13. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry.
- 14. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, *Emergency Orders*.
- 15. Permit Shield A permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with:
 - (a) Applicable requirements that are included and specifically identified in this permit: and
 - (b) Non-applicable requirements expressly identified in this permit.
- 16. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.
- 17. Emission limitations listed in this permit shall apply at all times except during periods of startup, shutdown, or malfunctions in accordance with Regulation 401 KAR 50:055, as long as the permittee follows the requirements of Regulation 401 KAR 50:055.

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SECTION G - GENERAL PROVISIONS (CONTINUED)

18. Pursuant to Section VII 2(1) of the policy manual of the Division for Air Quality as referenced by Regulation 401 KAR 50:016, Section 1(1), at least one month prior to the date of the required performance test, the permittee shall complete and return a Compliance Test Protocol (Form DEP 6027) to the Division's Frankfort Central Office. Pursuant to Regulation 401 KAR 50:045, Section 5, the Division shall be notified of the actual test date at least ten (10) days prior to the test.

(b) Permit Expiration and Reapplication Requirements

This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:020, Section 12].

(c) <u>Permit Revisions</u>

- 1. A minor permit revision procedure specified in Regulation 401 KAR 52:020, Section 14 (3) may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of Regulation 401 KAR 52:020, Section 14 (2).
- 2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

(d) Construction, Start-Up, and Initial Compliance Demonstration Requirements

- 1. Construction of process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.
- 2. Within thirty (30) days following completion and within fifteen (15) days following start-up and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Regional Office listed on the front of this permit in writing, with a copy to the division's Frankfort Central Office, notification of the following:
 - a. The date when construction commenced.
 - b. The date of start-up of the affected facilities listed in this permit.
 - c. The date when the maximum production rate specified in the permit application was achieved.

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SECTION G - GENERAL PROVISIONS (CONTINUED)

3. Affected facilities that are not completed in accordance with Regulation 401 KAR 52:020, Section 3(2) shall lose the construction and operation authorization granted in this permit. Accordingly:

- a. Construction shall commence no later than 18 months after the date of issue of this permit;
- b. Construction shall not begin and discontinue for 18 months or more unless the construction authorized is approved as a phased project;
- c. Construction shall be completed within 18 months of the scheduled completion date; and,
- d. Each phase of a phased construction project shall commence construction within 18 months of the projected and approved commencement date. Upon a written request, the Division may extend these time periods if the source shows good cause.
- 4. Operation of the affected facilities for which construction is authorized by this permit shall not commence until compliance with the applicable standards specified herein has been demonstrated pursuant to Regulation 401 KAR 50:055, except as provided in Section I of this permit.
- 5. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration test on the affected facilities in accordance with Regulation 401 KAR 50:055, General compliance requirements. These performance tests must be conducted in accordance with General Provision G(d)6 of this permit and the permitte must also furnish a written report of the results of such performance tests to the Division's Frankfort Central Office.
- 6. Pursuant to Section VII 2.(1) of the policy manual of the Division for Air Quality as referenced by Regulation 401 KAR 50:016, Section 1.(1), at least one month prior to the date of the required performance test, the permittee shall complete a Compliance Test Protocol (Form DEP 6027) to the division's Frankfort Central Office. Pursuant to Regulation 401 KAR 50:045, Section 5, the Division shall be notified of the actual test date at least ten (10) days prior to the test.
- (e) Acid Rain Program Requirements

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SECTION G - GENERAL PROVISIONS (CONTINUED)

f) Emergency Provisions

- 1. Pursuant to Regulation 401 KAR 52:020, Section 24(1), an emergency shall constitute an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or other relevant evidence that:
 - a. An emergency occurred and the permittee can identify the cause of the emergency;
 - b. The permitted facility was at the time being properly operated;
 - c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and,
 - d. The permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division within two working days after the time when emission limitations were exceeded due to the emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and the corrective actions taken. Notification of the Division does not relieve the source of any other local, state or federal notification requirements.
- 2. Emergency conditions listed in General Provision G (f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:020, Section 24(3)].
- 3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:020, Section 24(2)].
- (g) Risk Management Provisions
- 1. The permittee shall comply with all applicable requirements of Regulation 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center P.O. Box 3346 Merrifield, VA, 22116-3346

- 2. Submit additional relevant information if requested by the Division or the U.S. EPA.
- (h) Ozone depleting substances
- 1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
 - a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
 - b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.

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SECTION G - GENERAL PROVISIONS (Continued)

(h) Ozone depleting substances (1. continued)

- c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
- d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166.
- e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
- f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
- 2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

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SECTION H - ALTERNATE OPERATING SCENARIOS

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SECTION I - COMPLIANCE SCHEDULE